

REMARKS

The applicants respectfully request reconsideration in view of the amendment and the following remarks. Support for newly added claims 42 and 43 can be found in the specification at page 1, lines 31-32 and examples 1 and 2 (transfer roller disclosed). Support for newly added claims 43 and 44 can be found in the specification at page 1, line 33 to page 2, line 1. Support for newly added claims 45-47 can be found in the specification at page 4, lines 6-10.

Claims 31-33 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Hummel et al., U.S. Patent No. 5,992,317 (“Hummel”). Claims 34, 35, and 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hummel et al. in view of Meltz, U.S. Patent No. 3,345,942 (“Meltz”).

In a preferred embodiment, Hummel discloses rollers running in the dampening unit of an offset printing machine, which are provided with a non-stick coating consisting of a material which includes a fluorine-containing polymer or at least some portion of polytetrafluoroethylene (column 3, lines 60-64). The applicants’ claimed invention is not anticipated nor rendered obvious by Hummel for the following reasons.

The Examiner asserts at page 3 the first three lines of the Office Action mailed December 22, 2003,

Hummel et al. teach a method of using a roller 9 or 10 comprising a roller core and a roller covering being composed of an elastomer material or elastic plastic material (col. 3, lines 61-62, “the non-stick coating consists of a material which includes a fluorine-containing polymer”; see also claims 5 and 6...).

First of all, contrary to the Examiner’s assumption, the non-stick coating is clearly not an elastomer material or elastic plastic material as is required by the claimed

invention. The applicants claim an elastomer or elastic material containing fluorinated polyolefin. It is true that the fluorinated polyolefin is disclosed, but NOT the elastomer or elastic material, let alone the elastomer or elastic material containing fluorinated polyolefin. For this reason alone the claimed invention is not anticipated or rendered obvious over Hummel.

The roller disclosed by Meltz has a covering comprising rubber having polytetrafluoroethylene particles dispersed therein used in an inking system (col. 5, lines 9-11; claim 5). The teachings of Meltz does not render the claimed invention (comprising the step of running an elastomer or elastic plastic covered roller in a dampening system) obvious. This teaching, however, is totally contrary to the observation underlying applicants' invention. Applicants surprisingly discovered that on the surface of a roller comprising a covering composed of an elastomer material or elastic plastic material containing fluorinated polyolefin which is run in the dampening system of an offset printing machine the ink deposit on the surface of such roller covering is even less than on a roller covering which does not contain the fluorinated polyolefin.

The Examiner must consider the references as a whole, In re Yates, 211 USPQ 1149 (CCPA 1981). The Examiner cannot selectively pick and choose from the disclosed multitude of parameters without any direction as to the particular one selection of the reference without proper motivation. The mere fact that the prior art may be modified to reflect features of the claimed invention does not make modification, and hence claimed invention, obvious **unless the prior art suggested the desirability of such modification** is suggested by the prior art (In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984); In re Baird, 29 USPQ 2d

1550 (CAFC 1994) and In re Fritch, 23 USPQ 2nd. 1780 (Fed. Cir. 1992)). In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991) (in a determination under 35 U.S.C. § 103 it is impermissible to simply engage in a hindsight reconstruction of the claimed invention; the references themselves must provide some teaching whereby the applicant's combination would have been obvious); In re Dow Chemical Co., 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988) (under 35 U.S.C. § 103, both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure). The applicants disagree with the Examiner why one skilled in the art with the knowledge of the references would selectively modify the references in order to arrive at the applicants' claimed invention. The Examiner's argument is clearly based on hindsight reconstruction.

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching, suggestion, or incentive supporting this combination, although it may have been obvious to try various combinations of teachings of the prior art references to achieve the applicant's claimed invention, such evidence does not establish prima facie case of obviousness (In re Geiger, 2 USPQ 2d. 1276 (Fed. Cir. 1987)). There would be no reason for one skilled in the art to combine Hummel with Meltz.

NEW CLAIMS 41 AND 42

As is generally known, press inking and dampening systems alternately consist of rubber-covered rollers and hard-surfaced rollers (see John MacPhee, Fundamentals of Lithographic Printing. 1998, pages 217 and 219 (enclosed)). In Fig. 1 of Hummel, the rubber-covered rollers are represented by the circles with the thick lines (No's 5, 7 and

11, for example). Auxiliary rollers 9 and 10 provided with said non-stick coating are adjacent to the rubber-covered dampening applicator, [form] roller 5 and thus have to be hard-surfaced rollers. Auxiliary rollers 9 and 10 are not dampening rollers (see claims 41 and 42).

Hummel states at col. 4, lines

In the printing mode of operation of the printing machine, the first auxiliary roller 9 can be uncoupled from the inking unit 3 or integrated into the inking unit 3 and operated as a bridging roller as shown in broken lines in FIG. 1. Depending on the printing requirements, a structure of dampening medium and ink is formed on the dampening applicator roller 5 downstream of the contact point of the dampening applicator roller 5 and plate cylinder 1. This structure is broken down or leveled through operating one or both of the auxiliary rollers 9, 10 in contacting relation with the dampening applicator roller 5. Since both the auxiliary rollers 9, 10 have a non-stick coating on their respective circumferential surfaces, neither of the auxiliary rollers 9, 10 receives printing ink or dampening medium from the dampening applicator roller 5. Accordingly, unlike prior art arrangements neither printing ink nor dampening medium is "stored" temporarily on the rollers 9, 10. (emphasis added)

Further, the rollers according to the invention of claims 41 and 42 are dampening rollers and not auxiliary rollers placed adjacent to a form roller such as disclosed by Hummel. For this reason alone the newly added claims 41 and 42 are not anticipated by or rendered obvious over Hummel.

In addition, in the specification (page 1, lines 27-33) the alternating rubber-covered rollers and hard-surfaced rollers of the dampening system are specified as rollers having a metallic surface (hard cover) and such being coated with elastomer or elastic plastic material (rubber-like). Furthermore, dampening rollers according to the invention are specified as dampening form roller, metering roller and ductor roller e.g. Examples 1 and 2 also refer to

transfer and metering rollers.

Finally, there is another important difference between the non-stick auxiliary rollers 9 and 10 according to Hummel and the rubber-like covered dampening form, transfer, metering or ductor rollers according to the invention. Essentially the non-stick coating on the surface of both auxiliary rollers 9 and 10 blocks and prevents the transfer of both dampening medium and printing ink from the surface of the dampening applicator roller to the surface of the auxiliary rollers (col. 3, lines 56-60; col. 4, lines 41-47; col. 5, last paragraph of claim 1). If the dampening form, transfer, metering or ductor rollers according to the invention (claim 42) were provided with a non-stick surface coating as disclosed by Hummel, these rollers were not able to receive and transfer the dampening medium and thus could not fulfill their primary function, the feed of dampening medium from the fountain to the plate cylinder. Thus the non-stick surface coating disclosed by Hummel is different to the claimed coating which proved to be suitable for use as metering or transfer roller in a dampening system of an offset printing machine (see specification, page 6, lines 22-23 and Examples).

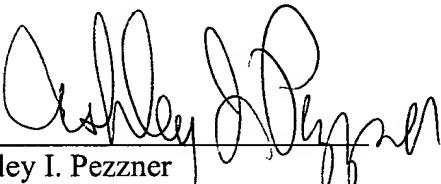
Claims 43 and 44

The applicants' claimed invention of claims 43 and 44 require wherein said roller (comprising a roller core and a roller covering being composed of an elastomer material containing fluorinated polyolefin or elastic plastic material containing fluorinated polyolefin) spreads a foundation solution. This is not taught or suggested by either Hummel or Meltz. For the above reasons, these claims are patentable.

No additional fee is due. In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 08463-00001-US from which the undersigned is authorized to draw.

Respectfully submitted,

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Enclosure: John MacPhee, Fundamentals of Lithographic Printing, 1998

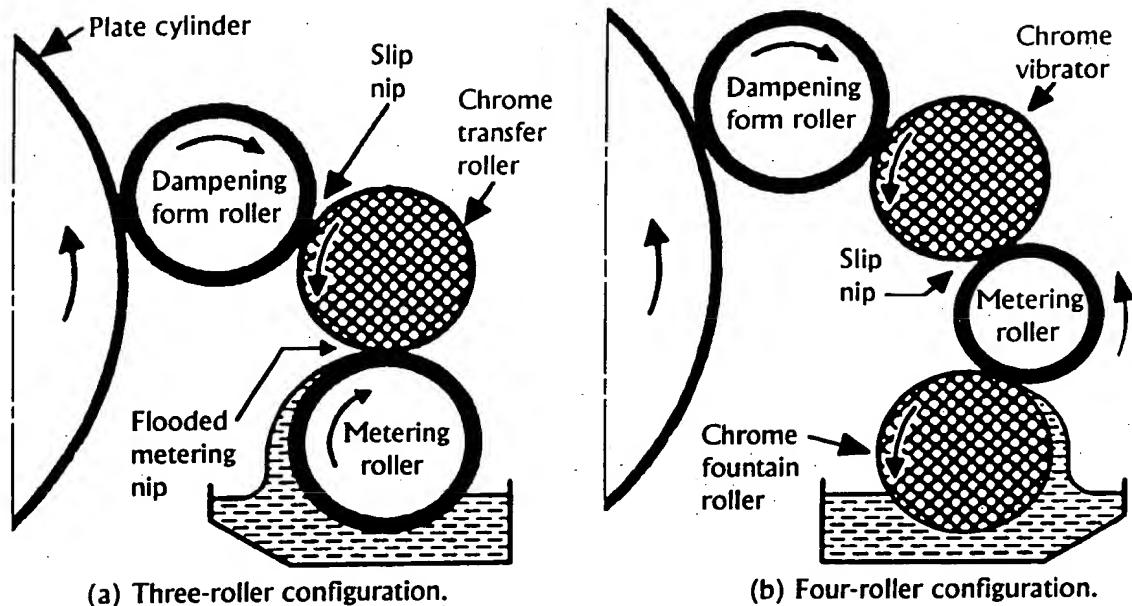


Figure 5.17 Comparison of the three- and four-roller configurations used in squeeze roller dampeners.

point i
carryin
referre
dampe
ink-wat
shearin
concep
squeeze
engagement WITH THE FORM ROLLER WHEN THE FORM ROLLER GOES OFF IMPRESSION

alternating rubber (or rubber-like) covered rollers and chrome plated rollers in the roller train of dampening systems

with of co
the dampening medium (= fountain solution)
betw = water + additive
emul must be transported from
and the fountain to the plate
emul
alcoh
muci cylinder.

substitute. (In the inks in use at the time that this type of dampener was introduced, the addition of alcohol to fountain solution greatly reduced water pickup, as measured by the Surland test discussed in connection with Figure 1.9. Thus, to some extent, alcohol counteracted the emulsifying effect of the shearing action of the slip nip.)

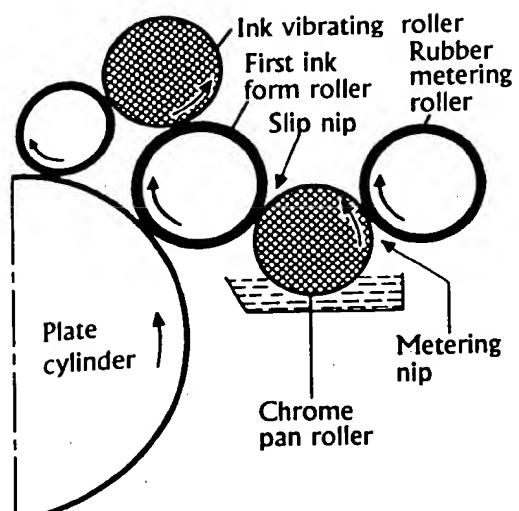
Another shortcoming of this configuration is that the absence of a vibrating roller makes it more susceptible to unwanted water streaks in the around-the-cylinder direction.

arrying some ink, and a water-
This arrangement is sometimes
or alternately, as an emulsion
is based on the fact that an
stream of the plate, i.e., by the
in the slip nip. This dampener
anical design because the two
ld be moved as a unit out of
the form roller goes off impression
; much easier to retrofit this type
s.

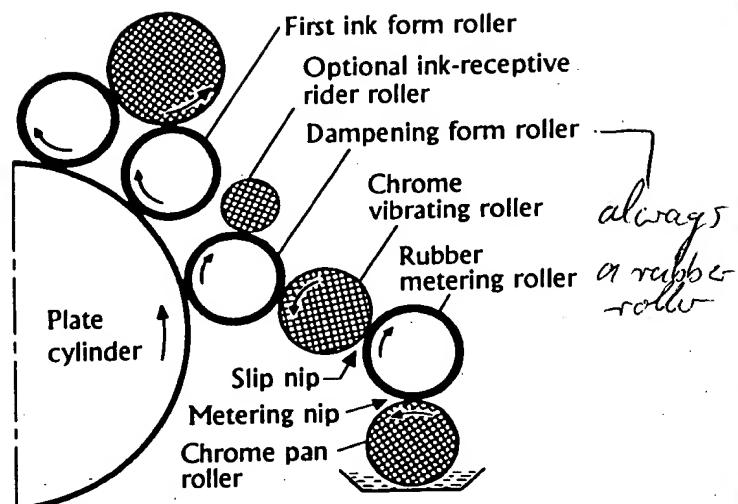
to placing the point of slippage
-carrying roller. The resulting
back into the dampening system
upply system. The additional
count for the need to run with
the opinion of many that it is
of dampener with an alcohol

of dampener with an alcohol

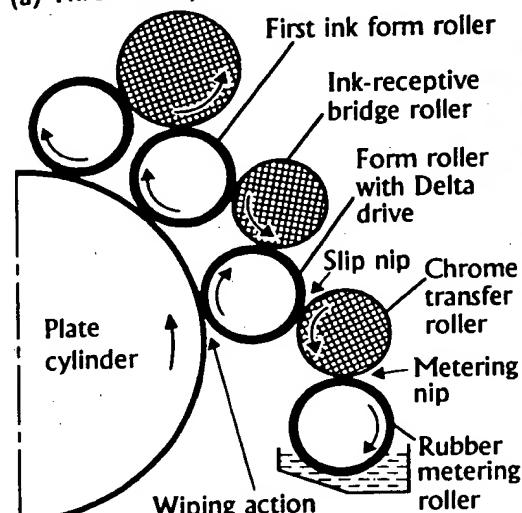
Dampening System Design



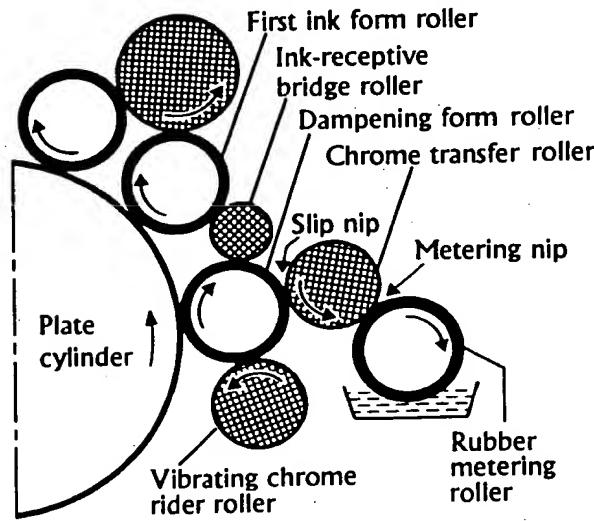
(a) Three-roller, inker-feed configuration



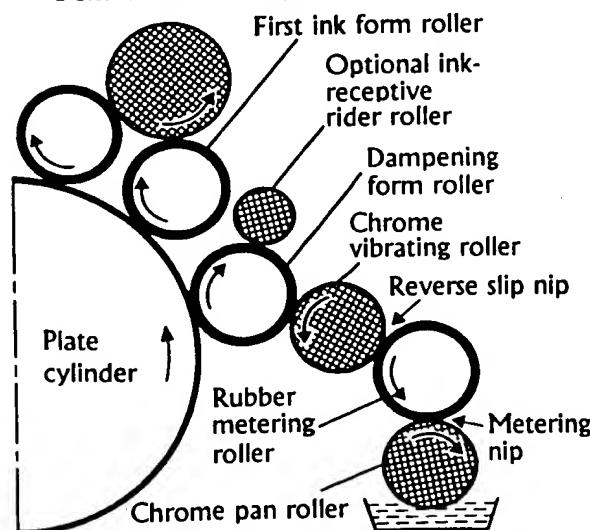
(b) Four-roller, plate-feed configuration



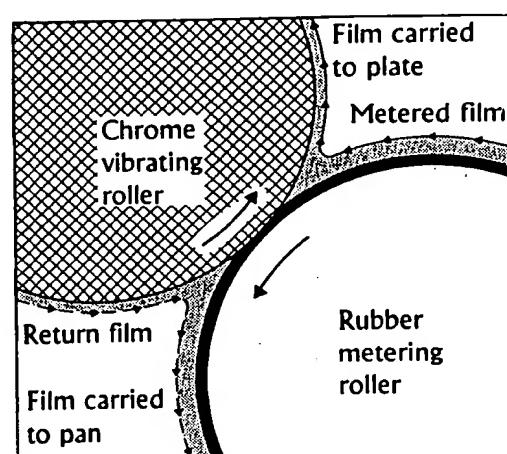
(c) Three-roller, combination feed with Delta drive on dampening form roller



(d) Three-roller, combination feed with chrome rider roller on dampening form roller



(e) Four-roller, plate-feed, with reverse slip nip



(f) Enlarged view of reverse slip nip that illustrates idealized film paths

Figure 5.10 Configurations of squeeze-roller dampeners currently in widespread use.